Attorney Docket No. 2003B002/2

Reply to Final Office Action dated March 16, 2010

Date: May 17, 2010

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## **REMARKS**

This reply is in response to the Final Office Action dated March 16, 2010. Claims 1-10, 12-20, 23-47, 49-65, 143-146, 148-176, and 178-198 are pending in the application and stand rejected. Applicants request entry of new claim 223. Entry of the foregoing amendment and reconsideration of the claims is respectfully requested.

## **Status of the Claims**

Claims 1-10, 12-20, 23-47, 49-65, 143-146, 148-176, and 178-198 are currently pending in the application. As reflected in the listing of claims above, claims 1, 28, 143, and 173 are amended herein to correct typographical errors. The claims recite a propylene content for the low crystallinity polymer of from 72 to about 90 wt%. Previously, the claims indicated a comonomer range of from 10 to 20 wt% ethylene. The specification states that the percentages by weight of propylene and comonomer in the low crystallinity polymer are "based on the sum of the weight percent propylene-derived units and the weight percent comonomer units being 100%." (Specification at [0042].) Because the lower limit of the propylene range and the upper limit of the ethylene range previously recited in the claims does not add up to 100%, the claims have been corrected accordingly so that the upper limit of ethylene is now 28 wt% in the independent claims, resulting in a possible sum of 100% for all values in the range. Support for these amendments is found in the specification at paragraph [0042]. All claim amendments herein have been made solely to clarify the nature of the articles claimed, and are not made in an effort to overcome the cited prior art, nor are they intended to limit the scope of the claims and their equivalents in any way. No new matter has been added.

Applicant thanks the Examiner for his reconsideration and withdrawal of the claim rejections under § 112, first and second paragraphs.

## Claim Rejections – 35 USC § 102 and § 103

Claims 1-10, 12-20, 23-47, 49-65, 143-146, 148-176 and 178-198 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over

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<u>Tsurutani et al.</u> (U.S. Patent No. 5,472,792; hereafter "*Tsurutani*"). Applicant respectfully traverses the rejection.

The pending claims are directed to articles comprising at least two layers. The first layer comprises a low crystallinity polymer having a propylene content of from 72 to 90 wt%, an ethylene content of from 10 to 28 wt%, a melting point of from 20°C to 110°C, a Mooney viscosity of 60 or less, and a propylene crystallinity of from 3 to 40%, as required in every claim. The second layer comprises a high crystallinity polymer, which has a propylene crystallinity greater than 40% and a melting point at least 25°C higher than that of the low crystallinity polymer, also required in every claim. The second layer of the claimed articles is either physically deformed, or capable of undergoing plastic deformation upon elongation. This combination of properties results in an article that, when stretched, has an elastic first layer with a physically deformed second layer that imparts a desirable surface appearance and feel, and results in a substantially opaque article (as indicated by a high haze value). (See, e.g., paragraphs [0007] and [0024]-[0026] of the specification.)

The pending claims are neither anticipated nor rendered obvious by Tsurutani because the reference fails to teach, disclose, or suggest all elements of the pending claims. At a minimum, Tsurutani does not teach, disclose, or suggest a low crystallinity polymer having a melting point of from 20°C to 110°C or a high crystallinity polymer with a melting point at least 25°C higher than that of the low crystallinity polymer.

As described in the specification, the low melting point of the low crystallinity polymer in the first layer and the difference in melting point between the materials of the first and second layer is desirable so that the articles of the invention can be elongated at a temperature below the melting point of the high crystallinity polymer, resulting in plastic deformation of the high crystallinity layer. (Specification at, *inter alia*, [0013]-[0018].) Further, the low melting point and other desired thermal characteristics of the low crystallinity polymer occur, at least in part, due to the stereoregularity imparted by using a single-site metallocene catalyst to form the polymer, resulting in polymers for use in the present invention that are substantially isotactic (or syndiotactic in some cases if desired). (Specification at [0048], [0053], [0058]-[0061], [0070], and [0084]-[0086].)

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Tsurutani does not teach, disclose, or suggest a melting point range for the amorphous polymer disclosed therein, nor does it teach, disclose, or suggest that the amorphous polymer layer and the crystalline propylene layer should have a melting point that differs by at least 25°C. Instead, Tsurutani teaches that the amorphous polymers described therein are either atactic polypropylenes produced as a by-product in producing a crystalline polypropylene, or are polymerized using a titanium catalyst supported on magnesium chloride and triethylaluminum. (Tsurutani at column 3, lines 31-47.) The amorphous polymers of Tsurutani would therefore not be expected by one of skill in the art to inherently have the lower melting points of the presently claimed low crystallinity polymers.

The Office Action alleges that it would be obvious based upon the teachings of Tsurutani to use a polymer having a lower melting point, and to increase the melting point difference between the low crystallinity and high crystallinity polymers, to improve the surface adhesivity of the polymers. (Office Action at page 4, citing Tsurutani at column 6, lines 48+.) Applicant respectfully disagrees. Tsurutani teaches that use of an amorphous polyolefin with a low *molecular weight* results in "striking surface adhesivity". There is no teaching or suggestion in Tsurutani that the same adhesivity results from a lower melting point, or from a difference of at least 25 °C between the amorphous and crystalline propylene layers described therein. Further, increased surface adhesivity is not a primary object of the present invention, and the specification states that sufficient adhesion between the layers is achieved due to the compatible crystallinity between the layers or by use of a conventional adhesive material. (Specification at [0033].) One of skill in the art seeking to form articles having the physical and mechanical characteristics of the present invention would therefore not be motivated by the teachings of Tsurutani to simply lower the melting point of the amorphous material described therein.

For all of the foregoing reasons, the pending claims are not rendered obvious by Tsurutani under §103. Applicant therefore respectfully requests withdrawal of the rejection and allowance of the claims.

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## **CONCLUSION**

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated, since this should expedite the prosecution of the application for all concerned.

If necessary to affect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to affect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1712 (Docket #: 2003B002/2).

Respectfully,

May 17, 2010

Date

/Stephen Timmins/

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